

Clarke University

Biology Degree Programs:

	Bachelor of Arts Degree	Bachelor of Science Degree
Core	BIOL 115 Fundamentals of Cell Biology and Genetics 4 hr BIOL 116 Ecology, Diversity and Evolution 4 hr BIOL 270 Genetics 4 hr BIOL 385 Scientific Information 1 hr BIOL 499 Capstone: Biology Seminar 1 hr	
Additional Core		BIOL 486 Biological Research 3 hr
Electives	At least five electives at or above the 200 level with at least 2 at or above the 300 level. Electives to choose from: <ul style="list-style-type: none"> BIOL 204 Environmental Biology 4hr BIOL 211 Anatomy & Physiology I 4hr BIOL 212 Anatomy and Physiology II 4hr BIOL 225 Animal Behavior 4hr BIOL 230 Vertebrate Structure and Function 4hr BIOL 240 Plant Biology 4hr BIOL 320 Subtropical Ecology 3hr BIOL 325 Conservation Biology 4hr BIOL 332 Microbiology 4hr BIOL 335 Immunology 2hr BIOL 350 Advanced Cell Biology 3hr BIOL 365 Evolution 4hr BIOL 410 Human Gross Anatomy 4hr BIOL 420 Human Physiology 4hr BIOL 425 Exercise Physiology 4hr BIOL 445 Neuroscience 4hr BIOL 451 Molecular Biology 4hr ENVS 300 Climate Change 3hr 	
Supporting courses	-CHEM 110 & 111 General Chemistry I and II (8 hr) -CHEM 221 Organic Chemistry I (4 hr) -MATH 117 Pre-calculus with Algebra or higher (3-4 hr)	-CHEM 110 & 111 General Chemistry I and II (8 hr) -CHEM 221 & 222 Organic Chemistry I and II (8 hr) -MATH 225 Calculus (4 hr) -PHYS 110 & 111 Physics I and II (8 hr)

CURRICULUM GUIDE FOR BIOLOGY BA DEGREE

(This is an example and not all Compass courses are listed or noted.)

MOST BIOLOGY COURSES HAVE A LAB THAT MUST BE TAKEN AT THE SAME TIME AS THE LECTURE PORTION OF THE CLASS.

YEAR 1

FALL	COURSE TITLE	CREDITS
BIOL 115	Fundamentals of Cell Biology and Genetics	4
CHEM 110	General Chemistry I	4
MATH 117	Precalculus with Algebra*	3

SPRING	COURSE TITLE	CREDITS
BIOL 116	Ecology, Evolution and Diversity	4
CHEM 111	General Chemistry II	4

YEAR 2

FALL	COURSE TITLE	CREDITS
CHEM 221	Organic Chemistry I	4
	Biology Elective**	4

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics	4

YEAR 3

FALL	COURSE TITLE	CREDITS
BIOL 385	Scientific Information	1
	Biology Elective**	4

SPRING	COURSE TITLE	CREDITS
	Biology Elective**	4

YEAR 4

FALL	COURSE TITLE	CREDITS
BIOL 499	Capstone: Biology Seminar***	1
	Biology Elective**	4

SPRING	COURSE TITLE	CREDITS
	Biology Elective**	4

*May complete Math 117 anytime during the 1st and 2nd year.

**Biology elective schedule is open, none, one, or more than one may be taken a semester. Many students take Biol 211 and 212 (Human Anatomy and Physiology I and II) sophomore year. Five electives must be taken with two of these electives at or above the 300 level.

***Capstone may be taken spring of junior or senior year.



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YEAR 1

FALL	COURSE TITLE	CREDITS
BIOL 115	Fundamentals of Cell Biology and Genetics	4
CHEM 110	General Chemistry I	4
MATH 225	Calculus*	4

SPRING	COURSE TITLE	CREDITS
BIOL 116	Ecology, Evolution and Diversity	4
CHEM 111	General Chemistry II	4

YEAR 2

FALL	COURSE TITLE	CREDITS
CHEM 221	Organic Chemistry I	4
	Biology Elective**	4

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics	4
CHEM 222	Organic Chemistry II	4

YEAR 3

FALL	COURSE TITLE	CREDITS
BIOL 385	Scientific Information	1
PHYS 110	Elements of Physics I	4
	Biology Elective**	4

SPRING	COURSE TITLE	CREDITS
BIOL 486	Biological Research	3
PHYS 111	Elements of Physics II	4
	Biology Elective**	4

YEAR 4

FALL	COURSE TITLE	CREDITS
BIOL 499	Capstone: Biology Seminar***	1
	Biology Elective**	4

SPRING	COURSE TITLE	CREDITS
	Biology Elective**	4

*May complete Math 225 later.

**Biol elective schedule is open: none, one, or more than one maybe taken a semester. Many students take Biol 211 and 212 (Human Anatomy and Physiology I and II) their sophomore year. Five electives must be taken with two of these electives at or above the 300 level.

CURRICULUM GUIDE FOR BIOLOGY BA DEGREE PRE-PT

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MOST BIOLOGY COURSES HAVE A LAB THAT MUST BE TAKEN AT THE SAME TIME AS THE LECTURE PORTION OF THE CLASS.

YEAR 1

FALL	COURSE TITLE	CREDITS
BIOL 115	Fundamentals of Cell Biology and Genetics	4
CHEM 110	General Chemistry I	4
MATH 117	Precalculus with Algebra*	3

SPRING	COURSE TITLE	CREDITS
BIOL 116	Ecology, Evolution and Diversity	4
CHEM 111	General Chemistry II	4

YEAR 2

FALL	COURSE TITLE	CREDITS
BIOL 211	Human Anatomy and Physiology I	4
CHEM 221	Organic Chemistry I	4

SPRING	COURSE TITLE	CREDITS
BIOL 212	Human Anatomy and Physiology II	4
BIOL 270	Genetics	4

YEAR 3

FALL	COURSE TITLE	CREDITS
BIOL 385	Scientific Information	1
BIOL 420	Human Physiology	4
PHYS 110	Elements of Physics I	4

SPRING	COURSE TITLE	CREDITS
BIOL 425	Exercise Physiology	4
BIOL 499	Capstone: Biology Seminar	1
PHYS 111	Elements of Physics II	4

YEAR 4

FALL	COURSE TITLE	CREDITS
BIOL 410	Human Gross Anatomy	4

SPRING	COURSE TITLE	CREDITS
BIOL 445	Neuroscience	4

*May complete Math 117 anytime during the 1st and 2nd year.

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MOST BIOLOGY COURSES HAVE A LAB THAT MUST BE TAKEN AT THE SAME TIME AS THE LECTURE PORTION OF THE CLASS.

YEAR 1

FALL	COURSE TITLE	CREDITS
BIOL 115	Fundamentals of Cell Biology and Genetics	4
CHEM 110	General Chemistry I	4
MATH 225	Calculus*	4

SPRING	COURSE TITLE	CREDITS
BIOL 116	Ecology, Evolution and Diversity	4
CHEM 111	General Chemistry II	4

YEAR 2

FALL	COURSE TITLE	CREDITS
BIOL 211	Human Anatomy and Physiology I	4
CHEM 221	Organic Chemistry I	4

SPRING	COURSE TITLE	CREDITS
BIOL 212	Human Anatomy and Physiology II	4
BIOL 270	Genetics	4
CHEM 222	Organic Chemistry II	4

YEAR 3

FALL	COURSE TITLE	CREDITS
BIOL 385	Scientific Information	1
BIOL 420	Human Physiology	4
PHYS 110	Elements of Physics I	4

SPRING	COURSE TITLE	CREDITS
BIOL 425	Exercise Physiology	4
BIOL 486	Biological Research	3
PHYS 111	Elements of Physics II	4

YEAR 4

FALL	COURSE TITLE	CREDITS
BIOL 410	Human Gross Anatomy	4
BIOL 499	Capstone: Biology Seminar	1

SPRING	COURSE TITLE	CREDITS
BIOL 445	Neuroscience	4

*May complete Math 225 later.

CURRICULUM GUIDE FOR BIOLOGY BA DEGREE PRE-PT

(This is an example and not all Compass courses are listed or noted)

FRESHMAN YEAR

FALL	COURSE TITLE	CREDITS
PT 101	Intro to Physical Therapy	2
CMPS 101	Compass Navigator	1
CMPS 110	Compass Seminar I	3
BIOL 115	Fundamentals of Cell Biology & Genetics	4
CHEM 110	General Chemistry I*	4
MATH 117	Precalculus with Algebra*	3
TOTAL		17

SPRING	COURSE TITLE	CREDITS
CMPS 111	Compass Seminar II	3
BIOL 116	Ecology, Evolution and Diversity	4
CHEM 111	General Chemistry II	4
	Compass Courses	3
	Compass Courses	3
TOTAL		17

SOPHOMORE YEAR

FALL	COURSE TITLE	CREDITS
BIOL 211	Human Anatomy & Physiology I**	4
CHEM 221	Organic Chemistry I	4
	Compass Courses	9
TOTAL		17

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics	4
BIOL 212	Human Anatomy & Physiology II**	4
	Compass Courses	9
TOTAL		17

JUNIOR YEAR

FALL	COURSE TITLE	CREDITS
BIOL 385	Scientific Information	1
BIOL 420	Human Physiology**	4
PHYS 110	Elements of Physics I*	4
	Compass Course	6
TOTAL		15

SPRING	COURSE TITLE	CREDITS
BIOL 499	Capstone: Biology Seminar	1
BIOL 425	Exercise Physiology**	4
PHYS 111	Elements of Physics II	4
	Compass Courses	6
TOTAL		15

Apply to DPT Program by November 1st of your Junior Year

** Counts as a Biology Major elective.

COURSE	PRE-REQUISITES*
CHEM 110	General Chemistry I (ACT Math sub score of 22 or higher or successful completion of MATH 090 (Intermediate Algebra) or equivalent)
MATH 117	Precalculus with Algebra (Three years of high school mathematics or equivalent and ACT Math sub score of 23 or higher)
PHYS 110	Elements of Physics I (MATH 117 (Precalculus with Algebra) or equivalent or consent)

COURSE	REQUIRED SUPPORTING COURSES
PSYC 111	Introductory Psychology
PSYC	Psychology Elective
PHIL 225	Applied Ethics: Biomedical

PHYSICAL THERAPY PREREQUISITES

Courses:

- Biology (4 hours)
- Human A&P I + II (8 hours)
- General Chemistry I + II (8 hours)
- Elements of Physics I + II (8 hours)
- Psychology (6 hours)
- Ethics Course (3 hours)
- Math (if required for Physics)

Minimum Requirements (All Candidates):

- 3.0 Cumulative GPA
- 3.0 Prerequisite GPA
- 75 hours of PT Observation (*across 3 PT settings*)
- Essay
- Competitive GRE (Graduate Record Exam)
- 3 Letters of Recommendation

Direct Pathway Admissions Requirements (Clarke Undergraduates Only):

- 3.3 Cumulative GPA
- 3.3 Prerequisite Science GPA
- No more than 2 re-take courses
- Competitive GRE Score
- 3 "highly recommend" Letters of Recommendation
- 30 hours of PT Observation (*across 3 PT settings*)
- Essay
- First time PT applicant

YEAR 1/ SENIOR YEAR - BEGINNING OF THE DOCTOR OF PHYSICAL THERAPY PROGRAM

FALL	COURSE TITLE	CREDITS
BIOL 410	Human Gross Anatomy**	4
DPT 514	Functional Anatomy & Biomechanics	3
DPT 515	Issues in Health Care	2
DPT 518	Physical Agents	3
TOTAL		12

** Counts as a Biology Major elective.

SPRING	COURSE TITLE	CREDITS
BIOL 445	Neuroscience**	4
DPT 524	Patient Care	3
DPT 526	Intro to PT Exam & Intervention	4
DPT 528	Therapeutic Exercise	2
DPT 529	Clinical Practicum I	1
TOTAL		14

YEAR 2 Summer - DPT 631 Internship I (Total 8 weeks) - 8 Credits

FALL	COURSE TITLE	CREDITS
DPT 612	Pathophysiology	3
DPT 613	Neuromuscular PT I	4
DPT 614	Musculoskeletal PT I	4
DPT 615	Education & Consulting in PT	2
DPT 617	Biostatistics & Research Methods	3
DPT 619	Clinical Practicum II	1
TOTAL		17

Winterim - DPT 632 Internship II - 4 weeks - 4 credits

SPRING	COURSE TITLE	CREDITS
DPT 620	Integumentary PT	1
DPT 621	Pharmacology	2
DPT 623	Neuromuscular PT II	4
DPT 624	Musculoskeletal PT II	4
DPT 625	PT Management I	3
DPT 626	Cardiopulmonary PT	2
DPT 629	Clinical Practicum III	1
DPT 632	Internship II (Winterim)	4
TOTAL		21

YEAR 3 Summer - DPT 733 Internship III (Total 8 weeks) 8 - Credits

FALL	COURSE TITLE	CREDITS
DPT 710 DPT 716	Advanced Specialty Elective OR Pediatric Specialty Elective	1-2
DPT 711	Orthotics & Prosthetics In PT	2
DPT 712	Primary Care in PT	3
DPT 713	Neuromuscular PT III	4
DPT 714	Musculoskeletal PT III	4
DPT 715	PT Management II	3
DPT 717	Doctoral Project	3
TOTAL		20-21

SPRING	COURSE TITLE	CREDITS
DPT 734	Internship IV (8 wks)	8
DPT 735	Internship V (8 wks)	8
DPT 720	Graduate Seminar	3
TOTAL		19

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FALL	COURSE TITLE	CREDITS
PT 101	Intro to Physical Therapy	2
CMPS 101	Compass Navigator	1
CMPS 110	Compass Seminar I	3
BIOL 115	Fundamentals of Cell Biology & Genetics	4
CHEM 110	General Chemistry I*	4
MATH 225	Calculus*	4
TOTAL		18

SPRING	COURSE TITLE	CREDITS
CMPS 111	Compass Seminar II	3
BIOL 116	Ecology, Evolution and Diversity	4
CHEM 111	General Chemistry II	4
	Compass Courses	6
TOTAL		18

SOPHOMORE YEAR

FALL	COURSE TITLE	CREDITS
BIOL 211	Human Anatomy & Physiology I**	4
CHEM 221	Organic Chemistry I	4
	Compass Courses	9
TOTAL		17

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics	4
BIOL 212	Human Anatomy & Physiology II**	4
CHEM 222	Organic Chemistry II	4
	Compass Courses	3
TOTAL		15

JUNIOR YEAR

FALL	COURSE TITLE	CREDITS
BIOL 385	Scientific Information	1
BIOL 420	Human Physiology**	4
PHYS 110	Elements of Physics I*	4
	Compass Course	6
TOTAL		15

SPRING	COURSE TITLE	CREDITS
BIOL 486	Biological Research	3
BIOL 425	Exercise Physiology**	4
PHYS 111	Elements of Physics II	4
	Compass Courses	6
TOTAL		17

COURSE	PRE-REQUISITES*
CHEM 110	General Chemistry I (ACT Math sub score of 22 or higher or successful completion of MATH 090 (Intermediate Algebra) or equivalent)
MATH 225	Calculus I Prerequisite: (Four years of high school mathematics or equivalent or MATH 117 (Precalculus with Algebra))
PHYS 110	Elements of Physics I (MATH 117 (Precalculus with Algebra) or equivalent or consent)

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COURSE	REQUIRED SUPPORTING COURSES
PSYC 111	Introductory Psychology
PSYC	Psychology Elective
PHIL 225	Applied Ethics: Biomedical

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- Biology (4 hours)
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DPT 514	Functional Anatomy & Biomechanics	3
DPT 515	Issues in Health Care	2
DPT 518	Physical Agents	3
BIOL 499	Capstone: Biology Seminar	1
TOTAL		13

SPRING	COURSE TITLE	CREDITS
BIOL 445	Neuroscience**	4
DPT 524	Patient Care	3
DPT 526	Intro to PT Exam & Intervention	4
DPT 528	Therapeutic Exercise	2
DPT 529	Clinical Practicum I	1
TOTAL		14

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FALL	COURSE TITLE	CREDITS
DPT 612	Pathophysiology	3
DPT 613	Neuromuscular PT I	4
DPT 614	Musculoskeletal PT I	4
DPT 615	Education & Consulting in PT	2
DPT 617	Biostatistics & Research Methods	3
DPT 619	Clinical Practicum II	1
TOTAL		17

SPRING	COURSE TITLE	CREDITS
DPT 620	Integumentary PT	1
DPT 621	Pharmacology	2
DPT 623	Neuromuscular PT II	4
DPT 624	Musculoskeletal PT II	4
DPT 625	PT Management I	3
DPT 626	Cardiopulmonary PT	2
DPT 629	Clinical Practicum III	1
DPT 632	Internship II (Winterim)	4
TOTAL		21

Winterim - DPT 632 Internship II - 4 weeks - 4 credits

YEAR 3 Summer - DPT 733 Internship III (Total 8 weeks) - 8 Credits

FALL	COURSE TITLE	CREDITS
DPT 710 DPT 716	Advanced Specialty Elective OR Pediatric Specialty Elective	1-2
DPT 711	Orthotics & Prosthetics In PT	2
DPT 712	Primary Care in PT	3
DPT 713	Neuromuscular PT III	4
DPT 714	Musculoskeletal PT III	4
DPT 715	PT Management II	3
DPT 717	Doctoral Project	3
TOTAL		20-21

SPRING	COURSE TITLE	CREDITS
DPT 734	Internship IV (8 wks)	8
DPT 735	Internship V (8 wks)	8
DPT 720	Graduate Seminar	3
TOTAL		19